CITY OF HOUSTON



PUBLIC WORKS AND ENGINEERING

PLANNING & DEVELOPMENT DIVISION

Application for Approval of Municipal Setting Designation

APPLICANT INFORMATION

	Applicant's Nam	ne: Beeson Properties	· . · . · . · · · · · · · · · · · · · ·			
	□Individual	☑Private Entity ☐Public E	ntity Non-Profit	t Entity Oth	er	
		Waugh Drive			Texas	77019
	(\$	Street)	(City)	(State)		(Zip)
	Phone No.: 71	3-622-5595 Fa	x No.: 713-622-5	5593		
	Email:					
			Contact Informati	ion		
	Name of Contac	ct: John Brusenhan				
	Title: Associate	- InControl Technologies				
	Address: 6845	FM 1960 W, Suite 195	Houston	Texas		77068
	(\$	Street)	(City)	(State)		(Zip)
	Phone No.: <u>281</u>	<u>-580-8892</u> Fa	x No.: <u>281-580-8</u>	3853		
	Email: <u>ibrusenl</u>	nan@incontroltech.com			***	
SITE IN	FORMATION					
	Site Name: Old	Katy Road				
	Site Size: 43 ac					
	Site Address:	6800, 6900, 7010 and 70	20 Old Katy Road	d Houston, H	arris County, T	exas 77024
		(List all owners - additiona	I sheet is attached	d, if needed)		
	Owner: Beeson	Properties				
	Owner Address:	550 Waugh Drive	Hou	uston T	exas 7	77019
		(Street)	(Cit	y) ((State)	(Zip)
	Name of Contac	t: Richard Waring				
		eeson Properties	- 1,	·		
	Phone No.: <u>713</u>	-622-5595 Fa	x No.: <u>713-622-5</u>	593		
	Email:					

Municipal Setting Designation Application

Old Katy Road Property 6800, 6900, 7010 and 7020 Old Katy Road Houston, Texas 77024



City of Houston

Public Works and Engineering

Planning and Development Division

Prepared for:

Beeson Properties 550 Waugh Drive Houston, Texas 77019

January 31, 2008

Prepared by:

InControl Technologies, Inc.

3845 FM 1960 West, Suite 195 Houston, Texas 77068 (281) 580-8892 FAX (281) 580-8853



ITEM	YES	NO	N/A	COH Us Only
**Executive Summary (Use Sheet Attached)	1			
Provide a legal description of the boundaries of the designated property and a copy of the deed for the designated property. Label "Appendix A" - Cross Reference with TCEQ's # 3	→ √			
 2. A site map showing: a. The location of the designated property. b. The topography of the designated property as indicated on publicly available sources, which must note the watershed and whether the designated property is located in a floodplain or floodway, as those terms are defined in Chapter 19 of the Code. c. The detected area of groundwater contamination. d. The location of all soil sampling locations and all groundwater monitoring wells. e. Groundwater gradients, to the extent known, and direction of groundwater flow. f. The ingestion protective concentration level exceedence zone for each contaminant of concern, to the extent known. Label "Appendix B" - Cross Reference with TCEQ's # 1, 2 & 4 3. A description of the current use, and, to the extent known, the anticipated uses, of the designated property and properties within 500 feet of the boundary of the designated property. 	√			
 4. For each contaminant of concern within the ingestion protective concentration level exceedence zone, to the extent known, provide the following: a. A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface. b. The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units. c. Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats or is soluble in water). Label "Appendix D" - Cross Reference with TCEQ's # 5 	1			
 5. For each contaminant of concern within the designated groundwater, to the extent known: a. A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface. b. The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units. c. Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats or is soluble in water). Label "Appendix E" - Cross Reference with TCEQ's # 5 	V			

YES	NO	N/A	COH Use Only
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ITEM	YES	NO	N/A	COH Use Only
14. A summary of any environmental site assessment reports filed with TCEQ regarding any site investigations or response actions that are planned, ongoing or completed related to the designated property. <u>Label "Appendix N"</u>	√			
15. A statement as to whether any public drinking water supply system exists that satisfies the requirements of Chapter 341 of the Texas Health and Safety Code and that supplies or is capable of supplying drinking water to the designated property and property within one-half mile of the designated property and the identity of each supply system. Label "Appendix O" - Cross Reference with TCEQ's # 2. 1 st bullet	٧			
 16. The name and address of each owner or operator of a water well registered or permitted by the state or the Houston-Galveston Subsidence District that is located within five miles of the boundary of the designated property, along with: a. A map showing the location of each well and, to the extent known, a notation of whether each well is used for potable water. b. A statement as to whether the applicant has provided notice to each owner in compliance with section 361.805 of the Texas Health and Safety Code. Label "Appendix P" - Cross Reference with TCEQ's # 8 & 9 	√			
17. The name and address of each retail public utility, as defined in section 13.002 of the Texas Water Code, that owns or operates a groundwater supply well within five miles of the boundary of the designated property, along with a statement as to whether the applicant has provided notice as required by section 361.805 of the Texas Health and Safety Code. Label "Appendix Q" - Cross Reference with TCEQ's # 7, 3 rd bullet	√			
18. A listing of each municipality, other than the city of Houston, with a corporate limit within one-half mile of the boundary of the designated property, and a statement as to whether the applicant has provided notice as required by section 361.805 of the Texas Health and Safety Code. Label "Appendix R" - Cross Reference with TCEQ's # 7, 2 nd bullet	√			
19. A listing of each municipality, other than the city of Houston, that owns or operates a groundwater supply well within five miles of the boundary of the designated property, and a statement as to whether the applicant has provided notice as required by section 361.805 of the Texas Health and Safety Code. Label "Appendix S" - Cross Reference with TCEQ's # 7, 4 th bullet	V			
20. A listing of owners of real property within 2,500 ft. of the boundary of the designated property as indicated by the most recent appraisal district records. (Include pre-printed mailing labels) <u>Label "Appendix T"</u>	V			

ITEM	YES	NO	N/A	COH Use Only
21. The following statement signed and sealed by a licensed professional engineer or licensed professional geoscientist authorized to practice in the State of Texas with expertise in environmental remediation: 'To the best of my knowledge and belief, based upon a review of all public and private records and other information sources available to me in the exercise of due diligence, the opinions stated and conclusions made in this application are supported by such information, and the technical and scientific information submitted with the application is true, accurate and complete. Based on such review, the contaminants of concern from sources on the designated property or migrating from or through the designated property more likely than not do exceed or do not exceed a non-ingestion protective concentration level on property beyond the boundaries of the designated property'	٧			
<u>Label "Appendix U"</u>				
 22. If the licensed professional engineer or licensed professional geoscientist determines that contaminants of concern from sources on the designated property are migrating from or through the designated property more likely than not do exceed a non-ingestion protective concentration level on property beyond the boundary of the designated property, then the applicant must: a. Specify the name and address of the owner of each property. b. Send a copy of the application to the owner of the property with the notice of the public meeting. c. Provide documentation that the designated property has been included in a state or federal program that requires that the entire non-ingestion protective concentration level exceedence zone be addressed to the satisfaction of the agency administering the program, along with documentation of the estimated time period in which it is to be addressed. An example of such a program is the Texas Voluntary Cleanup Program (section 361.501 of the Texas Health and Safety Code, as may be amended from time to time). d. Provide documentation upon completion of the state or federal program showing that the non-ingestion protective concentration level exceedences have been addressed to the satisfaction of the agency administering the program. Label "Appendix V" 			7	
23. The following statement certified by the applicant and any authorized representatives of the applicant(s) listed in the application: 'I certify under penalty of law that this application and all attachments were prepared under my direction or supervision in a manner designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the	√			

possibility of a fine and imprisonment for knowing violation'.			
Label "Appendix W"			
24. A copy of the TCEQ application, if it has been filed, excluding attachments. <u>Label "Appendix X"</u>	1		
25. The signature of the applicant and proof that the applicant has the legal authority to restrict the use of the groundwater on the designated property. <u>Label "Appendix Y"</u>	1		
26. The initial filing fee of \$2,000.00 payable to "City of Houston". <u>Label "Appendix Z"</u>	1		
27. Any additional information. Label "Appendix AA"		1	

CITY OF HOUSTON



PUBLIC WORKS AND ENGINEERING

PLANNING & DEVELOPMENT DIVISION

EXECUTIVE SUMMARY

Project Overview

InControl Technologies, Inc was retained by Beeson Properties (the property owner), to provide environmental consulting services at the properties located at 6800, 6900, 7010 and 7200 Old Katy Road in Houston, Texas. The subject property (site) currently consists of approximately 43 acres of contiguous land located northwest of downtown Houston, Harris County, Texas. The subject property was previously subdivided into four separate parcels prior to purchase by Beeson Properties. The four parcels were developed as individual commercial/industrial properties. Mobile Mini occupied the southwest parcel (7020 Old Katy Road), Trinity Metals occupied the northern parcel (7010 Old Katy Road), General Welding occupied the western parcel (6800 Old Katy Road) and F.W. Gartner occupied the southern parcel (6900 Old Katy Road, Figure 2.3). Currently, the entire 43 acre property is vacant and proposed for redevelopment. All buildings have been demolished and any equipment has been moved from the site.

Historical Environmental Conditions

Within the property boundary there are two proposed MSD boundaries. Proposed MSD **Boundary A** is located on the northern portion of the subject property and proposed MSD **Boundary B** is located in the south-central portion of the subject property. The two boundaries are depicted on **Figure 2.3**.

Mobile Mini – The Mobile Mini facility was located at 7020 Old Katy Road. In 2003, the Mobile Mini property enrolled in the Texas Commission on Environmental Quality (TCEQ) Voluntary Cleanup Program (VCP) and was assigned VCP No. 1602. Mobile Mini has occupied the subject property for approximately 10 years (1998-2008). Prior to that, the property was occupied by Plastic Applicators who conducted coating, welding, sand blasting and related machine shop activities relating to oilfield piping. Plastic Applicators vacated the property during the early 1980's at which time the property was used to store heavy equipment owned and operated by Houston Crushed Concrete.

Historic operations at the Mobile Mini property resulted in total petroleum hydrocarbon (TPH) and metals impacts to soil. Groundwater investigations conducted on the property did not identify any impact to groundwater above applicable TCEQ Tier 1 GW Protective Concentration Limits (PCLs). Shallow soil impacts (lead and TPH) were addressed in the Response Action Plan (RAP) dated September 21, 2006 which was approved by the TCEQ. The soil response action will be conducted once the property has been completely vacated.

F. W. Gartner – The F.W. Gartner facility is located at 6900 Old Katy Road. This property was enrolled in the TCEQ VCP (as Site No. 1764) in 2006. This property has been most recently utilized as a soil storage yard by Williams Brothers Construction in support of carious road construction activities in the area. Williams Brothers operated a pug mill and leased part of the property to TxDOT for a field office. Prior to Williams Brothers, a former oilfield pipe refurbishing facility was located on the property. Historic operations at the property resulted in impacts to shallow groundwater with chlorinated VOCs. The property was vacated in late 2007. Metals and TPH were initially identified in shallow groundwater but subsequent investigations determined that these constituents were not contaminants of concern (COC) in the shallow groundwater. The VOC groundwater plume has recently been delineated in all directions and has been determined to extend off-site onto the adjacent General Welding property (also owned by the MSD applicant).

A groundwater response action was implemented for the shallow groundwater plume in early 2007. This response action was the installation of a dual-phase extraction (DPE) system to recover, treat and discharge the groundwater (**Figure 2.3**). The treatment system was installed to address the off-site portion of the groundwater plume. In-situ biological oxidation was selected as a secondary groundwater response action. Injections of commercially available degradation bacteria were completed in two phases during 2007.

General Welding – The General Welding facility is located at 6800 Old Katy Road. This property was enrolled in the TCEQ VCP (as Site No. 1765) in 2006. The facility was a former metal manufacturing facility that operated at the subject site from approximately 1950 through 2006. Historic operations resulted in metal impacts to soil and groundwater and VOC impacts to groundwater. A network of groundwater monitoring wells has been installed at the subject property to investigate the downgradient portion of the VOC plume associated with the adjacent Gartner property. This groundwater plume is being addressed as part of the response action on the adjacent F.W. Gartner property (VCP 1764).

Three monitoring wells have also been installed in the central portion of the property to investigate a previous former underground storage tank (UST) site. This UST area received regulatory closure from the TNRCC (predecessor to the TCEQ) in 1993; however recent investigations have identified a very small gasoline related groundwater plume.

Trinity Metals – The former Trinity Metals is located at 7010 Old Katy Road. This property was similarly enrolled in the TCEQ VCP (as Site No. 1766) in 2006. The approximate 7 acre facility was a former metal manufacturing facility that reportedly operated as a support facility for General Welding from at least the 1960's through 2000. Environmental site investigations on the property identified a chlorinated solvent groundwater plume on the property. The plume has been delineated on-site. A groundwater response action was implemented for the groundwater impact in 2007 that consisted of in-situ biological oxidation. Injections of commercially available degradation bacteria were completed in two phases during 2007.

A former UST system was also located on the property that was subsequently removed in 2005. No release form the USTs was identified, and regulatory closure was received from the TCEQ.

Municipal Setting Designation (MSD) Areas

Three (3) areas of groundwater impact have been identified within the 43-acre subject properties. Two (2) MSD boundaries are being proposed. The first (MSD Boundary A) is proposed around the groundwater plume on the former Trinity Metals parcel. The second (MSD Boundary B) is proposed second around the groundwater plumes on the former General Welding and F.W. Gartner properties (Figure 2.3).

MSD Boundary A – The PCL Exceedence zone on the former Trinity Metals property has been delineated in all directions and is confirmed to have not migrated off-site. This plume consists of chlorinated VOCs. A review of the most recent (December 2007) groundwater monitoring results indicate the primary constituent is 1,1-DCE, and its concentrations are decreasing as a result of in-situ response actions.

MSD Boundary B – The MSD Boundary B will encompass two separate groundwater plumes. The first plume originates on the Gartner property and extends downgradient onto the General Welding property and consists of a consortium of chlorinated VOC constituents. A review of the most recent groundwater sampling data (December 2007) indicate PCE, TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE and VC each exceed TRRP Tier 1 ^{GW}GW_{Ing} PCLs in at least one sample. The analytical results indicate concentrations are stable.

The second plume of **MSD Boundary B** is much smaller in area and is located on the General Welding property slightly north of the Gartner plume. This second plume consists of gasoline related constituents (benzene). Since the release for this plume is related to the UST project originally given closure in 1993, the analytical results are being compared to the Plan A target groundwater cleanup concentrations (30 TAC 334) that were in affect at that time. Benzene has been identified in two monitoring wells at concentrations above the Plan A standards. No other constituents exceed the Plan A standards. Analytical results indicate the concentration of benzene is stable and the area of impact is not expanding.

Water Wells – Two (2) water wells were listed in the regulatory database within the subject property boundaries but not within the proposed MSAD Boundaries. Records indicate they were completed at depths greater than 250-feet below ground surface (bgs). According to the previous property tenant (General Welding), these wells were used as water sources for industrial processes and were never used as a drinking water source. The nearest public supply well owned and/or operated by a public utility is located approximately 1.8 miles from the proposed MSD boundary. This well is registered to the City of Houston Public Works Department and is listed as "inactive". The nearest active public supply well owned and/or operated by a public utility is located approximately 2.5 miles from the proposed MSD boundary and is registered to Bellewood WSC (Appendix Q).

Item 1 - Legal Property Description

Copies of the legal descriptions and metes and bounds descriptions of the designated properties are included in **Appendix A**.

Item 2 - Site Maps

The figures included in this section provide information required under **Item 2**. The figures depict the property location and topography, the areas of groundwater contamination, the location of all soil sampling points and groundwater monitoring wells, the groundwater gradients, and the ingestion groundwater PCL exceedance zones.

The subject property is located within the Buffalo Bayou watershed but outside the 100-year flood plain (Zone X).

The following is a listing of figures found in Appendix B.

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Figure 2.1 - Site Location Map
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Figure 2.2a - Topographic Map

Figure 2.2b - Watershed Map

Figure 2.2c - Floodplain Map

Figure 2.3 - Groundwater PCLE zones

Figure 2.4a - Soil Sampling Locations (Mobile Mini)

Figure 2.4b - Soil Sampling Locations (FW Gartner)

Figure 2.4c – Soil Sampling Locations (General Welding)

Figure 2.4d – Soil Sampling Locations (Trinity Metals)

Figure 2.4e – Groundwater Sampling Locations

Figure 2.5 – Groundwater Gradient Map (December 2007)

Figure 2.6a – MSD Boundary A – Soil PCLE Zone (Arsenic)

Figure 2.6b – MSD Boundary B – Soil PCLE Zone (Selenium)

Figure 2.6c – MSD Boundary B – Soil PCLE Zone (Lead, VOCs)

Figure 2.6d – MSD Boundary A – Groundwater PCLE Zone (1,1-DCE)

Figure 2.6e – MSD Boundary B – Groundwater PCLE Zone (Benzene)

Figure 2.6f – MSD Boundary B – Groundwater PCLE Zone (Arsenic)

Figure 2.6g – MSD Boundary B – Groundwater PCLE Zone (TCE)

Item 3 – Property Use

The subject property (site) consists of approximately 43 acres of land located northwest of downtown Houston, Harris County, Texas (**Figure 2.1**). The affected property is located in a mixed use residential, commercial and industrial area located northwest of downtown Houston. The 43-acre subject property is in a state of redevelopment.

The property is currently vacant (**Figure 3.1**) will all former tenant leases expired. Future use of the subject property is anticipated to be residential.

Figure 3.1 (found in **Appendix C**) provides a description of the surrounding land use within 500-feet of the site. The following is a general description of the surrounding land use.

- North The subject property is bounded to the north a tract of land owned by Union Pacific Railroad followed by Hempstead Highway.
- East The subject property is bounded to the east by commercial development followed by Hempstead Highway.
- South The subject property is bounded to the south by the Old Katy Road right-of-way followed by commercial development.
- West The subject property is bounded to the west by commercial developments.

Item 4 – PCLE Zone Discussion

A) MSD Boundary A – A review of the December 2007 groundwater monitoring data indicates that the only COC that currently exceeds the conservative TRRP Tier 1 residential ^{GW}GW_{Ing} PCL is 1,1-dichloroethene (1,1-DCE). The PCL exceedence zone is confined to the northern portion of the former Trinity Metals property. COC concentrations in excess of the conservative TRRP Tier 1 PCLs have not been detected in off-site (downgradient) monitoring wells (MW-23 and MW-24). The lateral extent of chlorinated hydrocarbons in groundwater has been delineated (Figure 2.3). The vertical extent of chlorinated hydrocarbons in groundwater is confined to the shallow groundwater unit. Based on a review of boring logs, the shallow groundwater on the subject property is first encountered at a depth of approximately 20-23 feet below ground surface (ft-bgs). The bottom of the shallow groundwater-bearing unit is estimated at approximately 24-27 ft-bgs.

A comparison of the recent groundwater monitoring results with applicable TCEQ Protective Concentration Levels (PCLs) indicates that the concentration of 1,1-DCE in groundwater samples from MW-13 and MW-21 exceed the ^{GW}GW_{Ing} PCL but are below the ^{Air}GW_{Inh-V} PCL. Therefore, based on the recent groundwater monitoring results, there is no indication that there is a non-ingestion protective concentration level exceedence zone on the subject property.

MSD Boundary B – A review of the December 2007 groundwater monitoring data indicates that several chlorinated VOCs [including tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,1-dichloroethene (1,1-DCE), vinyl chloride (VC)] exceed the TRRP Tier 1 residential ^{GW}GW_{Ing} PCL in the groundwater plume associated with the Gartner property. Arsenic was also identified above its ^{GW}GW_{Ing} PCL in several monitoring wells. The VOC and arsenic PCL exceedence zones are confined to the onsite property in the south central portion of the subject property. The lateral extent of chlorinated VOCs

6800, 6900, 7010 and 7020 Old Katy Rd., Houston, Harris County, Texas

and arsenic in groundwater is delineated in all directions (Figure 2.3) and confined to the shallow groundwater unit.

A second area of concern within proposed **MSD Boundary B** are concentrations of benzene above the 30 TAC 334 PST Plan A Target concentrations. The December 2007 analytical data depicts a small hydrocarbon plume at MW-14 (**Figure 2.3**). Benzene was the only hydrocarbon related constituent identified above a regulatory standard. The concentrations detected at MW-12 and MW-13 were much lower than MW-14 indicating a relatively small area of groundwater impact. MW-14 is located near the former underground storage tanks on General Welding that were removed in 1993.

Based on a review of boring logs in this MSD area, shallow groundwater is first encountered at a depth of approximately 18 feet below ground surface (ft-bgs). The bottom of the shallow groundwater-bearing unit is estimated at approximately 27 ft-bgs.

A comparison of the recent groundwater sampling results with applicable regulatory standards indicates that the following exceed the ^{GW}GW_{Ing} PCLs but are below the ^{Air}GW_{Inh-V} PCLs:

- the concentration of PCE in groundwater samples collected from MW-2, -3, -5, -6, -15 and -20;
- the concentration of TCE in groundwater samples collected from MW-2, -3, -4, -5, -6, -7, -8, -15, -20, -21 and -22;
- the concentration of 1,1-DCE in groundwater samples collected from MW-2, -4, -5, -6, -7, -15, -20 and -22;
- the concentration of cis-1,2-DCE in groundwater samples collected from -2, -4, -5, -6, -7, -8, -11, -15, -17, -20, -21 and -22;
- the concentration of trans-1,2-DCE in groundwater samples collected from MW-2, -4, -5, -15 and -22;
- the concentration of VC in groundwater samples collected from MW-2, -4, -5, -6, -7, -11, -15, -17,
 -20, -21 and -22; and
- the concentration of arsenic in groundwater samples collected from MW-6, -7, -16 and -17.

Therefore, based on the recent groundwater monitoring results, the non-ingestion PCL (^{Air}GW_{Inh-V}) is not exceeded on the subject property.

B) The following tables present the groundwater ingestion PCL exceedences that were reported from the December 2007 groundwater monitoring events. Values presented in **Bold** exceed the ^{GW}GW_{Ing} PCL (ingestion PCL). Results above the laboratory detection limit, but below the laboratory reporting limit are noted with a **J**.

Table 4.1a – Groundwater Ingestion PCL Exceedences (MSD Boundary A)

Monitoring	TCE	1,1-DCA	1,1-DCE	Cis-1,2-DCE	VC
Well	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
GWGW _{ing}	0.005	2.4	0.007	0.07	0.002
AirGW _{Inh-V}	160	7,200	980	10,000	3.6
MW-10	<0.00068	<0.00087	<0.00076	<0.00043	<0.00062
MW-13	<0.0068	<0.0087	0.057	<0.0043	<0.0062
MW-20	<0.0068	<0.0087	<0.0076	<0.0043	<0.0062
MW-21	<0.0068	<0.0087	0.013	<0.0043	<0.0062
MW-22	<0.00068	<0.00087	<0.00076	<0.00043	<0.00062
MW-23	<0.0068	<0.0087	<0.0076	<0.0043	<0.0062
MW-24	<0.00068	<0.00087	<0.00076	<0.00043	<0.00062

Table 4.1b – Groundwater Ingestion PCL Exceedences (MSD Boundary B)

Monitoring	Arsenic	PCE	TCE	1,1-DCE	Cis-1,2-DCE	Trans-1,2-	vc
Well	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	DCE	(mg/L)
						(mg/L)	
GWGW _{Inq}	0.01	0.005	0.005	0.007	0.07	0.1	0.002
AirGW _{Inh-V}		330	160	980	10,000	16,000	3.6
MW-2	NS	1.4	2.6	0.28	14.0	0.71	2.5
MW-3	NS	0.0076	0.019	<0.00076	0.02	<0.00064	<0.00062
MW-4	NS	<0.0034	3.0	0.2	4.7	0.14	0.450
MW-5	NS	0.049	0.20	0.06	5.3	0.28	0.770
MW-6	0.0126	0.042	0.077	0.024	0.19	0.015	0.058
MW-7	0.0234	0.0016	0.012	0.011	0.62	0.024	0.071
MW-8	NS	<0.00068	0.0056	0.0013	0.14	0.0019	<0.00062
MW-9	NS	<0.00068	<0.00044	<0.00076	0.00051 J	<0.00064	<0.00062
MW-10	0.00402 J	<0.00068	<0.00044	<0.00076	<0.00043	<0.00064	<0.00062
MW-11	NS	0.0023	0.0031	<0.00076	0.2	0.0079	0.0026
MW-15	NS	4.9	7.90	0.610	8.8	0.29	0.910
MW-16	0.202	<0.00068	0.0011	<0.00076	0.0028	<0.00064	<0.00062
MW-17	0.0465	0.0009 J	0.00079 J	0.0022	0.14	0.002	0.018
MW-18	NS	<0.00068	0.00089 J	<0.00076	0.002	<0.00064	<0.00062
MW-19	NS	0.00068 J	0.00073 J	<0.00076	0.00076 J	<0.00064	<0.00062
MW-20	NS	0.770	1.20	0.04	1.4	0.046	0.130
MW-21	NS	<0.00068	0.280	0.0011	0.49	0.012	0.029
MW-22	NS	4.3	5.90	0.39	14.0	0.61	1.1
MW-23	NS	0.0061	0.0087	<0.00076	0.012	<0.00064	<0.00062

Groundwater COC concentrations tabulated above for both **MSD Boundaries** are all less than the ^{Air}GW_{Inh-V} non-ingestion PCL, therefore there is no non-ingestion PCLE zone based on the December 2007 monitoring data.

C) The chlorinated solvents detected in groundwater samples are associated with the historical operations on the subject property. Chlorinated solvents are characterized by their high volatilities, high densities, low viscosities, low interfacial tension, low absolute solubilities, high relative solubilities, low portioning to soil materials and low degradabilities. Chlorinated solvents will dissolve in water at low concentrations but once the groundwater has reached the saturation limit for that compound, the chlorinated solvent will form a separate phase in equilibrium with the water. Because chlorinated solvents have higher densities than water, the separate phase will "sink". These compounds are referred to as "dense non-aqueous phase liquids" (DNAPLs). For higher concentration plumes, DNAPLs have the potential to penetrate the groundwater zone and form "pools" on the top of less permeable, confining layers. That being said, no phase separated concentrations have ever been detected in any of the monitor wells within the groundwater monitor well network.

The rate of flow of a DNAPL through a geologic medium is dependent on the density and viscosity of the DNAPL, the pressure driving the DNAPL, the intrinsic permeability of the geologic medium and the degree of DNAPL saturation of the pore spaces of the medium. Dissolved phase chlorinated solvents will move with groundwater flow. Chlorinated solvents will weakly bind to soil particles; therefore, sorption to soils do not significantly retard the movement of a chlorinated solvent.

The petroleum hydrocarbons detected in groundwater samples are associated with the historic USTs on the subject property. Petroleum hydrocarbons tend to have lower densities relative to water and therefore, any phase separated hydrocarbons will "float" within the water column. These compounds are referred to as "light non-aqueous phase liquids" (LNAPLs). For higher concentration plumes, LNAPLs form "pools" on the top of groundwater. That being said, no phase separated concentrations have ever been detected in any of the monitor wells within the groundwater monitor well network.

Based on the field observations and laboratory results made to date, the groundwater contaminants on the subject property are in the dissolved phase in the shallow groundwater. Off-site groundwater monitoring results indicate that the dissolved phase constituents of concern have not migrated off-site.

Item 5 - COCs in Designated Groundwater Discussion

A) Refer to Item 4 for a discussion of the contaminants of concern (COC) in the ingestion protective concentration level (PCL) exceedence zone. Current groundwater sampling results indicate that there is only one COC (1,1-DCE) exceeds the ingestion protective concentration level (PCL) in the proposed MSD Boundary A. Current groundwater sampling results indicate that there are eight identified COCs (PCE, TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, VC, benzene and arsenic) that exceed the ingestion PCLs within the proposed MSD Boundary B.

- B) Refer to Table 4.1a and Table 4.1b for a tabulated comparison of COC concentrations with the respective TRRP Protective Concentration Levels (PCLs)
- C) Refer to Item 4 for a discussion of the basic geochemical properties of the contaminants of concern (COCs) in the ingestion PCL exceedence zone.

Item 6 - Summary of Soil and Groundwater Concentration Data

Tables summarizing the concentration levels for the primary chemicals of concern in soil and groundwater are found in **Appendix F**. The tables include the concentration levels, the ingestion protective concentration limits (^{GW}Soil_{Ing} for soil and ^{GW}GW_{Ing} for groundwater), the non-ingestion protective concentration limits for soil (^{Tot}Soil_{Comb} and ^{Air}Soil_{Inh-V}) and groundwater (^{Air}GW_{Inh-V}), the critical protective concentration limits assuming no MSD is in place (^{GW}Soil_{Ing} for soil and ^{GW}GW_{Ing} for groundwater), and the critical PCLs assuming that an MSD is in place (^{Tot}Soil_{Comb} for soil and ^{Air}GW_{Inh-V} for groundwater).

Item 7 – Plume Stability

MSD Boundary A – The former Trinity Metals property has been impacted by dissolved phase contaminants (1,1-DCE) in the groundwater. The 1,1-DCE is believed to be associated with the historic operations conducted on the Trinity Metals property. The groundwater impact has been horizontally delineated in all directions and has not migrated off-site in the downgradient direction. Groundwater monitoring well MW-10 is the upgradient delineation point and groundwater monitoring wells MW-23 and MW-24 are the downgradient delineation points. Cross-gradient delineation monitoring points are MW-15 to the west and MW-16 and MW-22 to the east.

A review of the analytical results from July 2005 through December 2007 indicates that the groundwater plume is stable and decreasing over time. The monitoring wells within the PCLE zone are MW-13 and MW-21. The concentration of COCs has demonstrated a decreasing trend since implementing the groundwater response action in January 2007. Groundwater samples collected from monitor well MW-13 reported a high PCE concentration of 0.420 mg/L before the response action (October 2006) and has declined to 0.057 mg/L (December 2007). The total mass in groundwater in the source area has been reduced by at least 80 percent based on current groundwater monitoring results.

MSD Boundary B – The former General Welding and F.W. Gartner properties have been impacted by dissolved phase contaminants (PCE, TCE, 1,1-DCE, cis-1,2-DCE, trans-1.2-DCE, VC, benzene and arsenic). The chlorinated hydrocarbons and arsenic are believed to be associated with the historic operations conducted on the Gartner property while the benzene is believed to be associated with the former USTs on the General Welding property. Three dissolved phase plumes are present within the proposed MSD Boundary B; a petroleum hydrocarbon plume, a chlorinated VOC plume and an arsenic plume. Horizontal delineation of each of the plume has been completed, and the plume have not migrate off-site. Groundwater monitoring well MW-17 is the downgradient delineation point, groundwater monitoring well MW-19 is the upgradient delineation point and groundwater monitoring wells MW-16 and MW-18 are cross-gradient delineation points.

A review of the hydrocarbon analytical data from June through December 2007 indicates the concentration of benzene in groundwater is stable. A review of the chlorinated hydrocarbon data from May 2005 through December 2007 indicates that the area of impact appears to be stable to decreasing over time. The concentrations of COCs have demonstrated a decreasing trend since implementing the groundwater response action in February 2007. The concentration of arsenic in groundwater has; however, fluctuated over time indicating that it may be related to naturally occurring levels in the groundwater flow.

Item 8 – Contamination Exceedence Discussion (without MSD)

On the Designated Property

MSD Boundary A – As described in **Item 4**, groundwater samples collected from on-site monitoring wells MW-13 and MW-21 report 1,1-DCE at concentrations greater than the TRRP residential ingestion exceedence level without a municipal setting designation (^{GW}GW_{Ing}).

MSD Boundary B – As described in **Item 4**, arsenic, benzene, PCE, TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE and VC are reported at concentrations that exceed the TRRP residential assessment levels without a municipal setting designation. Groundwater samples collected from on-site monitoring wells MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-11, MW-15, MW-17, MW-20, MW-21, MW-22 and MW-23 reported one or more COCs at concentrations greater than the TRRP residential ingestion exceedence level without a municipal setting designation (^{GW}GW_{Ing}).

Off the Designated Property

MSD Boundary A – Off-site groundwater monitoring wells MW-23 and MW-24 have not reported COC concentrations greater than the TRRP residential ingestion exceedence level ($^{GW}GW_{Ing}$). Analytical data from these downgradient monitoring wells confirm that impacted groundwater does not extend beyond the northern subject property boundary.

MSD Boundary B – Arsenic, benzene, PCE, TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE and VC are reported at concentrations greater than the TRRP residential ingestion exceedence level (^{GW}GW_{Ing}). Groundwater samples collected from monitoring wells MW-9, MW-10, MW-13 and MW-18 reported COC concentrations near or below the laboratory detection limits. Groundwater samples collected from MW-10, MW-11, MW-12, MW-17, MW-18 and MW-19 confirm impacted groundwater does not extend beyond the proposed MSD boundary and the subject property boundary. In addition, the concentration of target COCs continues to decline in the monitoring well network.

Item 9 – Future Contamination Exceedence Discussion (with MSD)

MSD Boundary A – Recent groundwater monitoring on the subject property indicates that the area of groundwater impact has been horizontally delineated. A comparison of the July 2005 through December 2007 sampling results indicates that the plume appears to be stable and is expected to continue to decrease over time. Based on the results of historical and recent groundwater sampling results, InControl

Technologies does not anticipate future impact to off-site areas from the subject property which would exceed the TRRP residential ingestion exceedence level without a municipal setting designation ($^{Air}GW_{Inh}$.). Historically, COC concentrations have not exceeded the TRRP residential ingestion exceedence level with a municipal setting designation ($^{Air}GW_{Inh-V}$).

MSD Boundary B – Recent groundwater monitoring on the subject property indicates that the areas of groundwater impact have been horizontally delineated. A review of groundwater analytical results between May 2005 and December 2007 indicate that the plume appears to be stable. Based on these results, InControl Technologies does not anticipate impact to off-site areas from the subject property which would exceed the TRRP residential ingestion exceedence level without a municipal setting designation (AirGW_{Inh-V}). Historical COC concentrations have not exceeded the TRRP residential ingestion exceedence level with a municipal setting designation (AirGW_{Inh-V}). In February 2007 a dual-phase extraction system was installed along the boundary between the F.W. Gartner and General Welding parcels which is creating a decreasing concentration trend within the chlorinated VOC plume. Potentiometric surface measurements have demonstrated a cone of depression has been created around the DPE recovery wells.

Item 10 – Origin of Contamination

MSD Boundary A – Trinity Metals is located within an historically industrialized part of the City of Houston. A metal fabrication plant operated on the parcel from at least the 1960s through 2000. Historic use of chlorinated solvents is believed to have resulted in impacts to the property. At this time, none of the surrounding properties are not believed to have contributed to on-site contamination and are unrelated to the 1,1-DCE contamination.

MSD Boundary B — General Welding operated a large scale metal works facility from approximately 1950 through October 2005. Historical tenants of the F.W. Gartner property included a pipe coating, preparation and storage facility (from the mid-1940s until approximately 1990. The property was then vacated and leased to Williams Brothers (a TxDOT contractor) for the storage of road construction material and pug mill operation. The Gartner property was again vacated in November 2007. Historic operations on the Gartner property are believed to have resulted in impacts to the property. Former underground storage tanks on the General Welding property are believed to be the source of the benzene detected in the second, smaller groundwater plume. All surrounding properties are industrial but, at this time, are not believed to have contributed to on-site contamination and are unrelated to the identified areas of contamination.

Item 11 - Regulatory Actions

Not Applicable. No regulatory enforcement actions have been taken in the last five years.

Item 12 – Existing State or EPA Registrations, Permits or Identifications

There are no known existing State or EPA registrations, permits or identifications for these properties.

Item 13 – VCP Enrollment

In 2003, the Mobile Mini parcel was enrolled in the Voluntary Cleanup Program (VCP) of the Texas Commission on Environmental Quality (TCEQ). Mobile Mini was assigned VCP No. 1602.

In 2004, F.W. Gartner, General Welding and Trinity Metals parcels were similarly enrolled in the TCEQ VCP. The sites were assigned VCP numbers 1764 (Gartner), 1765 (General Welding) and 1766 (Trinity Metals), respectively.

Item 14 - TCEQ Submittals

The following is a list of submittals by InControl Technologies to the TCEQ for the various parcels within the subject property. The submittals have been grouped based upon their VCP identifications.

Mobile Mini - VCP 1602

- Affected Property Assessment Report (APAR), dated March 2, 2005
- Supplemental Site Investigation Report, September 2, 2005
- 3Q 2005 Groundwater Monitoring Report, dated October 28, 2005
- Supplemental Delineation Report, February 1, 2006
- Supplemental Delineation Report, August 14, 2006
- Response Action Plan (RAP), dated September 21, 2006

Gartner - VCP 1764

- Affected Property Assessment Report (APAR), dated September 7, 2005
- Supplemental Site Investigation Report, October 28, 2005
- TCEQ Underground Injection Control (UIC) Permit Application, dated November 23, 2005
- Response Action Plan (RAP), dated December 7, 2005
- 1Q 2006 Groundwater Monitoring Report, dated February 21, 2006
- Industrial Wastewater Permit Application, dated February 21, 2006
- Phase I Environmental Site Assessment, dated July 30, 2006
- 2/3Q 2006 Groundwater Monitoring Report, dated August 11, 2006
- 4Q 2006 Groundwater Monitoring Report, dated January 12, 2007
- 1Q 2007 Groundwater Monitoring Report, dated April 16, 2007
- 2Q 2007 Groundwater Monitoring Report, dated September 6, 2007

- 3Q 2007 Groundwater Monitoring Report, dated November 20, 2007
- 4Q 2007 Groundwater Monitoring Report, dated February 1, 2008

General Welding - VCP 1765

- Affected Property Assessment Report (APAR), dated November 2, 2005
- Phase I Environmental Site Assessment, dated May 25, 2006
- Groundwater Monitoring Report, dated August 16, 2006
- Supplemental Site Investigation and Groundwater Monitoring Report, dated January 17, 2007
- 1Q 2007 Groundwater Monitoring Report, dated April 16, 2007
- Supplemental Site Investigation Report, dated July 17, 2007
- Supplemental Site Investigation and Groundwater Monitoring Report, dated September 7, 2007
- 3Q 2007 Groundwater Monitoring Report, dated November 26, 2007
- 4Q 2007 Groundwater Monitoring Report, dated February 1, 2008

Trinity Metals - VCP 1766

- Release Determination Report, Dated March 11, 2005
- Affected Property Assessment Report (APAR), dated March 15, 2005
- Supplemental Site Investigation Report, dated September 7, 2005
- Response Action Plan (RAP), dated September 21, 2005
- TCEQ Underground Injection Control (UIC) Permit Application, dated November 21, 2005
- 4Q 2005 Groundwater Monitoring Report, dated November 3, 2005
- 1Q 2006 Groundwater Monitoring Report, dated February 21, 2006
- Supplemental Site Investigation and Groundwater Monitoring Report, dated May 25, 2006
- 3Q 2006 Groundwater Monitoring Report, dated August 24, 2006
- Supplemental Site Investigation and Groundwater Monitoring Report, dated November 21, 2006
- 1Q 2007 Groundwater Monitoring Report, dated March 29, 2007
- Soil Response Action Plan (RAP), May 14, 2007
- 2Q 2007 Groundwater Monitoring Report, dated July 8, 2007
- 3Q 2007 Groundwater Monitoring Report, dated October 18, 2007
- Revised RAP, November 20, 2007
- 4Q 2007 Groundwater Monitoring Report, dated February 1, 2008

In addition to the above documents, numerous response to comment letters have been prepared for the TCEQ regarding the various submittals.

Item 15 – Public Drinking Water Supply

Drinking water for the subject property is provided by the City of Houston. A review of the City of Houston 2006 Drinking Water Quality Report indicates that, "Houston drinking water met or exceeded all Federal and State standards for safe drinking water." Therefore, the City of Houston water supply system satisfies the requirements of Chapter 341 of the Texas Health and Safety Code.

The City of Houston 2006 Drinking Water Quality Report and the online City of Houston GIMS database indicated that the City of Houston water supply system appeared to be capable of supplying drinking water to the surrounding properties within a ½-mile radius of the subject property.

Item 16 – Private Water Well Owners within Five Miles of Subject Property

Refer to Appendix P for the names and address of identified water well owners and notifications.

Item 17 – Retail Public Utility Operating Groundwater Supply Well within Five Miles of Subject Property

The following retail public utilities operate at least one groundwafer supply well within five miles of the subject property:

- City of Houston,
- Bellewood WSC,
- Memorial Villages Water Authority,
- Spring Branch Health Care Center,
- City of West University Place,
- City of Spring Valley,
- The Village Healthcare Center,
- City of Bunker Hill,
- OYOG Operations,
- · Redi-Ice Houston, and
- Rice University.

The above mentioned have been provided notice as required by section 361.805 of the Texas Health and Safety Code.

Refer to Appendix Q for the Water Utility Database Report and notifications.

Item 18– Municipalities within One Half Mile of Subject Property

Not Applicable. There are no other municipalities within ½- mile of the subject site. Therefore, no notice has been provided.

Item 19 – Municipalities Operating Groundwater Supply Well within Five Miles of Subject Property

The following municipalities operate at least one groundwater supply well within five miles of the subject property:

- City of Houston,
- · City of West University Place,
- · City of Spring Valley, and
- City of Bunker Hill.

The above mentioned have been provided notice as required by section 361.805 of the Texas Health and Safety Code.

Refer to **Appendix Q** for the Water Utility Database Report and notifications.

Item 20 – Real Property Owners within 2,500 feet of Designated Property Boundary

Refer to **Appendix T** for a listing of real property owners within 2,500 feet of designated property boundary. Copies of mailing labels have also been included in **Appendix T**.

Item 21 – Statement Regarding Completeness of Information and Potential for Off-Site Impact

To the best of my knowledge and belief, based upon a review of all public and private records and other information sources available to me in the exercise of due diligence, the opinions stated and conclusions made in this application are supported by such information, and the technical and scientific information submitted with the application is true, accurate, and complete. Based on such review, the contaminants of concern from the sources on the designated property more likely than not do not exceed a non-ingestion protective concentration level on property beyond the boundaries of the designated property.

Michael F. Marcon, P.G.

President / Principal

InControl Technologies, Inc.

Signature: Multicle

Incentrol Technologies, Inc.

08-04-30A09:48 RCVD

Item 22 - Determination of Off-site Source

Not Applicable. The contaminants of concern from sources on the designated property do not exceed a non-ingestion protective concentration level beyond the boundary of the designated property.

Item 23 - Statement Regarding Accuracy of Information

I certify under penalty of law that this application and all attachments were prepared under my direction or supervision in a manner designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Michael F. Marcon, P.G.

President, Principal

InControl Technologies, Inc.

Signature:

Item 24 / MSD Application Submitted to TCEQ

A copy of the MSD application that was submitted to the TCEQ will be included as **Appendix X** once the City of Houston MSD application has been approved.

Item 25 - Signed Restrictive Covenant

The signed and notarized restrictive covenant on groundwater use at the site is pending approval of the MSD from the City of Houston. Once the MSD application is approved, a copy of the signed and notarized restrictive covenant will be included as **Appendix Y**.

Item 26 - Filing Fee

The initial filing fee of \$2,000 is attached.

"If we're in control, You're in control."

May 16, 2008

Ms. Carol Ellinger
City of Houston
Public Works and Engineering Department
Planning and Development Services Division
611 Walker, 18th Floor
Houston, Texas 77002

Subject:

Municipal Setting Designation Application 2008-008-BP

Old Katy Road Property 6800, 6900, 7010 and 7020 Old Katy Road Houston, Harris County, Texas 77024

Dear Ms. Ellinger:

As requested, we have prepared this brief summary for the Old Katy Road MSD Application regarding monitoring wells on the subject property(ies) that have been plugged and abandoned or are no longer monitored. In general, the initial groundwater monitoring programs on each of the properties included a wide array of analytes including chlorinated VOCs, RCRA metals and in some cases total petroleum hydrocarbons. As sufficient analytical data was collected, the TCEQ allowed the removal of certain analytes from the monitoring program.

General Welding - 6800 Old Katy Road

All monitoring wells installed to investigate groundwater issues on General Welding remain part of the current monitoring program.

Gartner - 6900 Old Katy Road

Monitoring well MW-1 (installed in 2005) was damaged by the property tenant in 2006 and subsequently plugged and abandoned. Based on its location as a mid-plume monitoring well, the TCEQ did not require replacement of this well. All other monitoring wells remain part of the current monitoring program. The majority of the monitoring wells are no longer monitored for metal analytes with the exception of a select number of points that are monitored for arsenic. Similarly, the TPH now requires only certain wells to be monitoring for TPH.

Trinity Metals - 7010 Old Katy Road

Several of the monitoring wells installed to assess this property have been plugged and abandoned. Wells MW-11 and MW-12 were previously located on the eastern portion of the property and never reported concentrations of the constituents of concern; therefore upon approval from the TCEQ, these two wells were plugged and abandoned on March 7, 2007. Original monitoring well MW-14 (located on the General Welding tract) was damaged during demolition activities in March 2006. Based on the lack of detection of constituents of concern, the TCEQ did not require its replacement.

Similar to the Gartner property, the groundwater data has demonstrated that metals are not a constituent of concern. Therefore, the TCEQ eliminated the requirement for monitoring for metals on the property. The TCEQ has also allowed approved certain monitoring wells (specifically MW-10, MW-15 and MW-16) to be monitored on a less frequent schedule based on the lack of detection.

Mobile Mini Property - 7020 Old Katy Road

Monitoring wells MW-1 through MW-4 were originally installed on July 25, 2005. Following a monitoring period in which no constituents were detected, the TCEQ approved abandonment of the monitoring wells. The wells were subsequently plugged and abandoned on March 2, 2006.

We hope this summary assists you in reviewing the MSD application submittal. If you have any comments or questions, please do not hesitate to call me at (281) 580-8892.

Sincerely.

InControl Technologies, Inc.

John Brusenhan

John D. Brusenhan, P.E.

Associate

AFFADAVIT

THE STATE OF	TEXAS/	
COUNTY OF	Hon;	2

I am over the age of 18 and legally competent to make this affidavit.

I certify under penalty of law that I am the managing partner of the following properties that are the subject of a City of Houston Municipal Setting Designation (MSD) application (MSD Number 2008-008-BP).

- General Welding, deed to John S. Beeson, Trustee;
- · Trinity Metals, deed to John Beeson; and
- . F. W. Gartner, deed to John Beeson and Paul Sirota

The applicant name of MSD Application 2008-008-BP was submitted as Beeson Properties. The actual ownership entities of the properties involved are listed above. By power of attorney, I have the legal authority to restrict the use of groundwater on the designated properties pursuant as the owner of the real properties contained within the designated MSD boundary(ies) that is subject to this application.

By: Jof

John S. Beeson

Managing Partner of John S. Beeson Trustee; John Beeson; and John Beeson and Paul Sirota

Ву:

Printed name:

SUBSCRIBED AND SWORN before me on this the day of witness my hand and seal of office.

LEONOR C. CHAVEZ
My Commission Expires
October-23-2011

Notary Public in and for the State of